

to claim 1, wherein said bacterium is a pathogen that infects a mammal selected from the group consisting of: human, livestock animal, and companion animal.

6. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium infects pigs.

7. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium infects humans.

8. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium infects bovines.

9. (Twice amended) The isolated pathogenic *Leptospira* bacterium according to claim 5, wherein said bacterium produces the symptoms of leptospirosis in a human or other animal which it infects.

10. (Twice amended) The isolated pathogenic *Leptospira* bacterium according to claim 1, wherein said bacterium induces reproductive disease.

11. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 10, wherein the reproductive disease induced by said bacterium comprises a lower rate of farrowing in an infected animal compared to a non-infected animal.

12. The isolated pathogenic *Leptospira* bacterium according to claim 10, wherein the reproductive disease induced by said bacterium comprises fetal death *in utero* or spontaneous abortion.

13. (Once amended) The isolated pathogenic *Leptospira* bacterium according to claim 10, wherein the reproductive disease causes the weaning-to-mating period for the offspring of an infected animal to be longer than for the offspring of a non-infected animal.

15. (Twice amended) The isolated *Leptospira* bacterium according to claim 1, wherein said bacterium further contains nucleic acid having a nucleotide sequence that is at least about 80% identical to a nucleotide sequence selected from the group consisting of SEQ ID NOs: 1-2, 4-7, and a complementary nucleotide sequence thereto.

16. (Twice amended) The isolated *Leptospira* bacterium according to claim 1, wherein said bacterium further comprises a rRNA gene having a nucleotide sequence selected from the group consisting of: (i) a nucleotide sequence which is at least 80% identical to SEQ ID NO: 4; (ii) a nucleotide sequence which is at least 80% identical to SEQ ID NO: 5 and (iii) a complementary nucleotide sequence to (i) or (ii).

17. (Twice Amended) The isolated *Leptospira* bacterium according to claim 16